

# *Astronomy and Physics Working Group*

Report to OS and SEUS

Dec 3, 2002

Chair: D. Richstone, Co-chair: Kathy Flanagan



# ***Astronomy and Physics Working Group: Charter***

The Astronomy and Physics Working Group (APWG) will serve as a standing working group for both the Structure and Evolution of the Universe (SEU) and Origins Subcommittees of the Space Science Advisory Committee. It will provide community input on topics and issues related to the formulation and execution of the Research and Analysis (R&A) program. The group will discuss issues pertinent to the discipline scientists within the A&P Division.

From J. Frogel, Oct 2002



# ***Astronomy and Physics Working Group: Charter (2)***

Some specific functions to be performed:

- Provide assistance on all issues concerning R&A, including program organization, solicitation process, R&A needs of flight missions
- Serve as a sounding board for R&A policy issues
- Inform the science community of R&A policies and missions
- Present the views of the community on these issues; and
- Provide scientific input by organizing ad hoc working groups, workshops etc. as and when required



# ***Astronomy and Physics Working Group: *Charter for this Meeting****


- Provide assistance on all issues concerning R&A, including program organization, solicitation process, R&A needs of flight missions
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# ***Astronomy and Physics Working Group: Charter for this Meeting (2)***

The APWG should report on the following:

1. What is missing from the present R&A program (e.g. support for new laboratory or detector programs?) – *Gap* analysis
2. What criteria should be used for rebalancing the R&A program (e.g. proposal pressure, opportunism, support for key missions in the roadmaps)



# Meeting Highlights

- Lab Astro and LWDWG Reports
  - Mission needs from laboratory astrophysics.
  - Detector development issues.
- Balance in the R&A Program
  - LTSA Junior set-aside.
- Gaps in the R&A Program
  - TRL 3 – 6 development gap.
- Code R support for Technology Development



# Laboratory Astrophysics

- Report argues that future missions need laboratory astrophysics esp for high-resolution spectroscopy.
- Support in this area is declining (eg NIST has stopped supporting this work).
- Fundamental Physical Data (eg, atomic and molecular data) is needed in many areas supported by other agencies.
- Suggestion: consider this issue in the NAAAC.



# Balance in the R&A Program

- Discipline Scientists rebalance the program considering 1 – intrinsic scientific merit; 2- program (the road maps and strategic plan; 3 – proposal pressure.
- We agree.
- Suggestion: OS and SEUS endorse this prioritization.



# Balance in the R&A Program (2)

- LTSA Junior Set-aside.
- We think its bad policy and counter-productive (bad for recipients).
- We suggest that SEUS and OS consider this question.



# The TRL Gap

- Code R and SAPRA carry technologies from TRL 0 (idea) to TRL 3 (breadboard).
- Explorer missions are downgraded if they use technologies at TRL<6.
- Only development from 3 – 6 is through flagship programs or New Millenium Missions.
- Technology community widely perceives this as a problem in SEU and O communities and also in solar system communities.
- Suggestion: SEUS and OS carry this to SScAC.